State of Eritrea

Health Millennium Development Goals Report

Innovations Driving Health MDGs in Eritrea

September, 2014
# TABLE OF CONTENT

Acronyms

Message from H.E. Amina Nurhussien, Minister for Health

1. Executive Summary

2. Acknowledgements

3. Introduction

4. Methodology

5. Country Background

6. Country Development Context

6.1. Background to the MDGs

7. Status of Health Related Millennium Development Goals

7.1. Goal 4: Reduce Child Mortality

7.2. Goal 5: Improve Maternal Health

7.3. Goal 6: Combat HIV/AIDS, Malaria and Other Diseases

7.3.1 Control of HIV and AIDS and current status

7.3.2 Malaria Control and Current Status

7.3.3 Tuberculosis Control and Status

8. Trends in Life Expectancy

8.1. Cross-Cutting Innovative Strategies Employed to Drive Health MDGs

8.2. Efforts Towards Universal Health Coverage

8.3. Integrated Health Services Provision in Eritrea

8.4. Strategy of Comprehensive Services Delivery

8.5 Community Involvement

8.6. Intersectorial Approaches

8.7 Political Commitment and Leadership

9. Summary of Success Factors for Health MDGs

10. Overall Challenges to Sustain and Improve Health MDGs in Eritrea

11. Summary of Lessons Learnt

12. Conclusion

13. The Post-2015 Global Development Agenda

13.1. What the MDGs Have Achieved

13.2 The Challenges and Lessons Learnt from MDGs
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AfDB</td>
<td>African Development Bank</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>ANC</td>
<td>Antenatal Clinic</td>
</tr>
<tr>
<td>ART</td>
<td>Anti-Retroviral Treatment</td>
</tr>
<tr>
<td>ARV</td>
<td>Anti-Retroviral Drug</td>
</tr>
<tr>
<td>BCG</td>
<td>Bacillus-Calmette-Guerin</td>
</tr>
<tr>
<td>BMI</td>
<td>Body Mass Index</td>
</tr>
<tr>
<td>CBO</td>
<td>Community-Based Organization</td>
</tr>
<tr>
<td>CEDAW</td>
<td>Convention on the Elimination of all Forms of Discrimination against Women</td>
</tr>
<tr>
<td>CFCs</td>
<td>Chlorofluorocarbons</td>
</tr>
<tr>
<td>CLTS</td>
<td>Community Led Total Sanitation</td>
</tr>
<tr>
<td>CPT</td>
<td>Cotrimoxazole Preventive Therapy</td>
</tr>
<tr>
<td>CRC</td>
<td>Convention on the Rights of the Child</td>
</tr>
<tr>
<td>DOT</td>
<td>Directly Observed Treatment</td>
</tr>
<tr>
<td>DIN</td>
<td>Department of Immigration and Nationality</td>
</tr>
<tr>
<td>DST</td>
<td>Drug Susceptibility Testing</td>
</tr>
<tr>
<td>EPHS</td>
<td>Eritrea Population and Health Survey</td>
</tr>
<tr>
<td>EDA</td>
<td>Eritrean De-Mining Authority</td>
</tr>
<tr>
<td>CARMME</td>
<td>Campaign on Accelerated Reduction of Maternal Mortality in Eritrea</td>
</tr>
<tr>
<td>ECD</td>
<td>Early Childhood Development</td>
</tr>
<tr>
<td>EFA</td>
<td>Education for All</td>
</tr>
<tr>
<td>EPHS</td>
<td>Eritrean Population and Health Survey</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FPL</td>
<td>Food Poverty Line</td>
</tr>
<tr>
<td>GBV</td>
<td>Gender-Based Violence</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GoSE</td>
<td>Government of the State of Eritrea</td>
</tr>
<tr>
<td>GNP</td>
<td>Gross National Product</td>
</tr>
<tr>
<td>HCFC</td>
<td>Hydro chlorofluorocarbons</td>
</tr>
<tr>
<td>HDI</td>
<td>Human Development Index</td>
</tr>
<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>HPI</td>
<td>Human Poverty Index</td>
</tr>
<tr>
<td>IAEA</td>
<td>International Atomic Energy Agency</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IES</td>
<td>Incomes and Expenditure Survey</td>
</tr>
<tr>
<td>IFI</td>
<td>International Financial Institutions</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>INGO</td>
<td>International Non-Governmental Organization</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>ITN</td>
<td>Insecticide-Treated Net</td>
</tr>
<tr>
<td>IWRM</td>
<td>Integrated Water Resources Management</td>
</tr>
<tr>
<td>MCH</td>
<td>Maternal and Child Health</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goal</td>
</tr>
<tr>
<td>MDGR</td>
<td>Millennium Development Goal Report</td>
</tr>
<tr>
<td>MIMS</td>
<td>Multiple Indicator Monitoring Survey</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>MoND</td>
<td>Ministry of National Development</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MPR</td>
<td>Malaria program-performance review</td>
</tr>
<tr>
<td>MoA</td>
<td>Ministry of Agriculture</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MoEM</td>
<td>Ministry of Energy and Mining</td>
</tr>
<tr>
<td>MoFA</td>
<td>Ministry of Foreign Affairs</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MoLHW</td>
<td>Ministry of Labour and Human Welfare</td>
</tr>
<tr>
<td>MoMR</td>
<td>Ministry of Marine Resources</td>
</tr>
<tr>
<td>MoTC</td>
<td>Ministry of Transport and Communication</td>
</tr>
<tr>
<td>MoTI</td>
<td>Ministry of Trade and Industry</td>
</tr>
<tr>
<td>MoWLE</td>
<td>Ministry of Land Water and Environment</td>
</tr>
<tr>
<td>MIS</td>
<td>Malaria Indicator Survey</td>
</tr>
<tr>
<td>NATCoD</td>
<td>National HIV/AIDS &amp; Tuberculosis Control Division</td>
</tr>
<tr>
<td>NSO</td>
<td>National Statistics Office</td>
</tr>
<tr>
<td>NTCP</td>
<td>National TB Control Programme</td>
</tr>
<tr>
<td>NMCP</td>
<td>National Malaria Control Program</td>
</tr>
<tr>
<td>ODA</td>
<td>Official Development Assistance</td>
</tr>
<tr>
<td>ODS</td>
<td>Ozone Depleting Substance</td>
</tr>
<tr>
<td>OVC</td>
<td>Orphans and Vulnerable Children</td>
</tr>
<tr>
<td>PASS</td>
<td>Poverty Assessment Study Survey</td>
</tr>
<tr>
<td>PICES</td>
<td>Poverty, Income Consumption and Expenditure Survey</td>
</tr>
<tr>
<td>PMTCT</td>
<td>Prevention of Mother-To-Child Transmission</td>
</tr>
<tr>
<td>SPCF</td>
<td>Strategic Partnership Cooperation Framework</td>
</tr>
<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
</tr>
<tr>
<td>SZTBC</td>
<td>Sub-Zoba TB Coordinator</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TCPL</td>
<td>Total Consumption Poverty Line</td>
</tr>
<tr>
<td>WFFC</td>
<td>World Fit For Children</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNDAF</td>
<td>United Nations Development Assistance Framework</td>
</tr>
<tr>
<td>UN AIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
</tr>
<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade and Development</td>
</tr>
<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
</tr>
<tr>
<td>UN DPI</td>
<td>United Nations Department of Public Information</td>
</tr>
<tr>
<td>UNEP</td>
<td>United Nations Environment Programme</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>UN FPA</td>
<td>United Nations Population Fund</td>
</tr>
<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organization</td>
</tr>
<tr>
<td>UNODC</td>
<td>United Nations Office on Drugs and Crime</td>
</tr>
<tr>
<td>UNOPS</td>
<td>United Nations Office for Project Services</td>
</tr>
<tr>
<td>UN Women</td>
<td>United Nations Entity for Gender Equality and the Empowerment of Women</td>
</tr>
<tr>
<td>UNWTO</td>
<td>United Nations World Tourism Organization</td>
</tr>
<tr>
<td>WFP</td>
<td>World Food Programme</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
</tr>
<tr>
<td>ZTBC</td>
<td>Zoba TB Coordinator</td>
</tr>
</tbody>
</table>
The overall goal for the health system in Eritrea, as articulated in the Health Sector Strategic Development Plan (2013-2016), is the improvement of health status, general wellbeing, longevity and economic productivity for all Eritreans. Accordingly, over the last few years, the country has achieved remarkable progress on basic health indices. Key among them includes significant reductions in maternal and child mortality ratios, and HIV prevalence. In the period since independence in 1991, access to healthcare within a radius of 10 kilometers increased from 46 percent to 78 percent, while over 60 percent of the population enjoys access to health care facilities within a radius of 5 kilometers; leading substantial improvements in the access to and utilization of quality and timely healthcare. Evidence already points towards the fact that Eritrea has already achieved all the three health MDGs, namely MDG 4: Reduce child mortality; MDG5: Improve maternal health; and MDG 6: Combat HIV/AIDS, Malaria and other diseases before the 2015 deadline.

These significant improvements and achievements recorded in the Millennium Development Goals (MDGs) are a result of a concerted effort by government, citizens, civic and community leadership, and development partners. These gains can be attributed to several complementary factors; key among these are the high prioritization of health and education and a strong commitment to development among Eritreans, as well as to innovative multi-sectoral approaches to health.

However, it is important to note that all the eight MDGs are inter-linked. Hence, to sustain the gains made in the health MDGs would also need complementary support from, and attention to the other sectors covered by the other five MDGs.

Although much has been achieved so far, much more remains to be done especially in the case of non-communicable diseases such as cardiovascular diseases, diabetes, hypertension, cancers, liver diseases, etc. These emerging diseases are already among the ten leading causes of morbidity and mortality in adults. This has created a situation where the country has to tackle a double disease burden. Taking into account this increasing trend of non-communicable diseases, the Government of Eritrea is taking actions to prevent, control and manage non-communicable diseases. The effort is being launched without losing focus to the need of sustaining our achievements in the prevention and control of communicable diseases.
As we approach the 2015 deadline, and going forward, it is our sincere hope that useful lessons can be drawn from Eritrea’s successes so far in the health sector, which could help formulate, shape and implement the post 2015 global development Agenda.

Thank you

1. Executive Summary

Eritrea has a positive and unique story to tell about health related Millennium Development Goals (MDGs). Eritrea was one of the few countries expected to achieve the MDGs in health. As expected, Eritrea has now achieved all the three health MDGs namely MDG-4, reduce child mortality, MDG-5 improve maternal health and MDG-6 combat HIV/AIDS, malaria and other diseases.

Based on the latest data available and through an analysis of the trends of the eight MDGs, as well as the current supportive policy and political environment in Eritrea, this report tells the Eritrean experience in achieving MDGs 4, 5, 6. Specifically, this report highlights innovations, best practices, as well as challenges and bottlenecks that need to overcome in order to sustain the gains achieved thus far.

Eritrea’s march towards promoting equitable, accessible and affordable health services to the majority of its citizens has been commendable. Consented government programmatic and resource investment in the health sector made it possible to reduce under-five mortality from 150 per 1,000 live births in 1990 to 50 by 2013. During the same period, the maternal mortality ratio decreased from 1,700 per 100,000 live births to 380.

The major interventions leading to these achievements have been the provision of effective health-facility delivery services, immunization, family planning, nutrition interventions, control of communicable diseases including HIV and AIDS, tuberculosis (TB), malaria and expansion of community based interventions.

To ensure effective implementation of programs, adequate funding has been mobilized to increase the availability of different categories of human resources for health.

To further improve maternal health, a Roadmap for Maternal and New-born Health is in place, supported by the Campaign on Accelerated Reduction of Maternal Mortality in Eritrea (CARMME). The triple threat of HIV, TB and malaria is being effectively tackled through a partnership involving the GoSE, Global Fund (AIDS, TB and Malaria), the UN system and other partners. Supportive health sector policy and strategic plans have also been developed and implemented rigorously over the same
period\textsuperscript{1}. The results are promising to sustain the gains and further improve health care programming in Eritrea.

The Malaria Performance Review (MPR) (2013) highlighted achievements recorded by the government to create an enabling, operating and programming environment in the health sector. The Review concluded that Eritrea is winning the war against malaria. Morbidity and mortality due to malaria have decreased by 85 percent and 90 percent, respectively, since 1998. Incidence of malaria is now at a low level of 1,282 per 100,000.

Despite these achievements in the control and prevention of malaria, the threat of resurgence due to climatic changes, cross border transmission, partly due to the expansion of irrigation for food security, remains real.

A robust and costed strategic plan with clear vision, goal, targets, with involvement of major stakeholders has been developed. The strategic plan is expected to enhance the efforts of the government to eradicate malaria.

Based on the 2010 Eritrean Population & Health Survey (EPHS), HIV prevalence in Eritrea is 0.93%. HIV incidence has decreased from 45 per 100,000 in 2001 to less than 8 in 2012. Furthermore, data derived from VCT and PMTCT clients and blood donors continually show a reduction in HIV as well as syphilis positivity rates.

Knowledge about HIV/AIDS is still maintained at a high level and condom distribution is increasing. PLWHAs put on ART every year are averaging 1,000. Although all these developments are encouraging, there is more work to be done to control the epidemic further.

Eritrea life expectancy at birth went from 39.1 in 1960 to 48 in 1990 and to 63 in 2012. Infant (0-1 year old) and under-five mortality (0-5) have both shown extraordinary improvements: the former went from 122.2 to 40.8 deaths per 1,000 live births and the latter from 205 to 58.2 between 1975 and 2008\textsuperscript{2}. Progress in other sectors, e.g. water and sanitation and education, has also contributed to improved health outcomes. It is important to note that, owing to the relative isolation of Eritrea, information and resources are extremely limited. It is impressive the Eritrea is one of the few countries to achieve the MDGs in health, particularly targets in child health\textsuperscript{3}.

The GoSE runs an effective three tier health delivery system which has also proved to be formidable in meeting the felt needs of communities at all levels. This is another

\textsuperscript{1}See a comprehensive listing of the MOH health policy frameworks and strategic plans developed and implemented in the health sector over the past decade. They are documented and presented at the end of the report as secondary bibliography

\textsuperscript{2}World DataBank.

\textsuperscript{3}Progress in health in Eritrea: Overseas Development Institute p3.
key and notable strategic approach and structural planning process that has contributed to the efforts leading to the achievement of the health MDGs in Eritrea.

One other critical area the GoSE has paid close attention is the development of adequate health facilities and infrastructure. Since independence in 1991, the number of hospitals increased from 16 to 28, health centers increased from 5 to 56 and health stations (including clinics and MCH facilities) from 72 to 256. However, as shown elsewhere in this report, this quantitative increment, significant as it is, does not fully reflect the qualitative improvements that resulted from the replacement of old and run-down facilities. Infrastructure improvement alone does not also automatically equate to quality health care delivery. The GoSE recognizes that health care facilities should be adequately resourced and well managed in order to make a difference in the lives of communities they are meant to serve for which the government has always been committed.

The efforts made in the control of communicable diseases and the changes in the living standards and lifestyles of Eritrean people as well as environmental factors are leading to an epidemiologic shift from communicable to non-communicable diseases. There is growing incidence of non-communicable diseases such as hypertension, diabetes, cancers, chronic lung diseases (asthma) and mental health problems and some chronic Neglected Tropical Diseases (NTDs).

Despite some of the challenges facing, as of 2013, Eritrea has achieved all three health MDGS: MDG-4 on child health, MDG-5 on maternal health, and MDG-6 on combating HIV/AIDS, Malaria and other diseases.

2. Acknowledgements

The Eritrea Health MDG Report was made possible through a participatory and consultative process involving Government ministries, United Nations agencies, international organizations, private sector partners, academia and research institutions and civil society organizations. The Government of Eritrea wishes to acknowledge the invaluable contributions made by officials from both Government and UN agencies and other development partners that provided technical guidance, relevant data and statistics for evidence-based analysis, including the input on innovations, best practices, and challenges that appear in this report.

The Government of Eritrea wishes to extend appreciation to the UN country team under the leadership of the Resident and Humanitarian Coordinator for the partnership and technical support in the preparation of this document. Special thanks also go to the consultant Dr. Godwin Hlatshwayo of the Redroof Brands for reviewing this report and providing invaluable contributions.
3. Introduction

It is important to note that several policies and programmes have been initiated and implemented by the Government of the State of Eritrea ever since the launching of the MDGs. These include equal opportunity development objectives, free education and health programmes, proactive approach to immunization, collaboration between traditional and orthodox health practices and accelerated health infrastructure enhancement, among others. These sustained policy actions have impacted many of the MDGs. There is ample evidence from international publications\(^4\), the Eritrea Health and Population Surveys (1995, 2002 and 2010), and other surveys and facility based reports that Eritrea has made outstanding progress on health MDGs.

Just about fifteen months to the terminal date of the MDGs, as a preliminary and partial effort to have a national report on the MDGs, the Eritrean Government has prepared a background document on its performance on the health MDGs in close collaboration with the United Nations Country Team in Eritrea. This report documents progress on MDGs 4, 5 and 6. It showcases policy and institutional innovations driving progress on these targets, identifying challenges for consolidating progress and emerging lessons that the Government of Eritrea and other African countries could use to drive the MDGs to buttress the sustainable development agenda post 2015. Based on a trend analysis of each MDG, evaluated against the target of each goal, this report assesses progress that the country has made and innovative strategies employed along the way to achieve the health MDGs.

Eritrea has prepared this evidence-based 2014 Eritrea Health MDGs progress report through a comprehensive analysis of the achievements, their drivers, as well as challenges and lessons learned. The report examines the progress, key drivers responsible for this performance, and investigates what is not progressing well. It also highlights good practices for MDG achievement that can be further built upon or replicated. A particular emphasis is being placed on innovative strategies that may have simultaneously accelerated progress on MDGs 4, 5 and 6 with positive spill over effects on other MDGs. This report is intended to deepen the national, regional and international understanding of how progress was achieved on these MDGs with meagre resources. Areas of further improvements are suggested, together with key messages and lessons learnt. This forward looking report will identify areas for relevant partnerships in scaling up the achievements at regional and global levels, while ensuring strong national support and ownership at home.

The health MDGs and the rest of the other MDGs are interlinked. The success of innovative strategies on MDGs depends on translating existing policy promises on sustainable development into concrete actions. The report evaluates progress on linking health MDGs to sustainable development in practice, examining the challenges and opportunities and innovative success stories.

4. Methodology

The methodology for the preparation of the health MDGs report involved collecting data from various sources at national and regional levels. The main method of data collection was desk review of data sources. Data/information used for the preparation of the report was drawn from Government sources (administrative and surveys). Information gaps were bridged from UN credible sources. Additional inputs from the UN Country Team in Eritrea were also accommodated in the report.

Thus the assignment was undertaken through primary and secondary information sources. All relevant secondary documents and publications from Ministry of Health, relevant agencies of Governments and international organizations were reviewed to provide evidence for articulating the report. The Ministry of Health developed the working draft with input from Ministry of National Development and the United Nations Country Team in Eritrea. The consultant, in collaboration with the Ministry of Health, then reviewed the draft report, incorporating comments from the UN System.

5. Country Background

Eritrea is situated in the Horn of Africa and lies north of the equator between latitudes 12°22’ N and 18°02’ N, and longitudes 36°26’21″ E and 43°13’ E. It has an area of 124,000 square kilometers and is bordered by the Red Sea to the east, Djibouti to the southeast, Ethiopia to the south, and the Sudan to the north and west. Administratively, Eritrea is divided into six zobas (regions): Anseba, Debub, Debubawi Keih Bahri, Gash-Barka, Maekel, and Semenawi Keih Bahri, and 58 sub-zobas (sub-regions) (NSEO 2013; MOH, 2012)

Eritrea has varied topography with land rising from below sea level to 3,000 meters. There are three major physiographic zones: the Western Lowlands, the Central and Northern Highlands, and the Eastern Lowlands. Rainfall in Eritrea ranges from less than 200 mm per annum in the Eastern Lowlands to about 1,000 mm per annum in a small pocket of the escarpment. There are two major periods of precipitation. One, from June to September, covers both the Western Lowlands and the Highlands, and the second between October and March covering the Eastern Lowlands. This topography and rainfall pattern has impact on the disease pattern requiring decentralized policy approaches and interventions for health care delivery.

A complete population census is pending. However, based on the Eritrean Population and Health Survey (EPHS) conducted in 2010, the National Statistics Office (NSO) estimates Eritrea’s resident population in 2014 as 3.5 million. It is estimated that the population under 15 constitutes 47 percent while the population 65 years and above accounts for only 7 percent of the total population. Eritrea is a multi-ethnic society with nine different ethnic groups speaking nine different languages and professing
two major religions, namely, Christianity and Islam (NSO, 2013). Below is the latest briefing map for Eritrea.

6. Country Development Context

Soon after independence in 1991, Eritrea formulated and implemented socio-economic development policies and strategies that led to marked improvements in key sectors.

Eritrea’s development aspiration is to achieve rapid, balanced, and sustainable economic growth with social equity and justice. Moreover, the Government places emphasis on social justice and community and individual rights to access education, health care, food and other services regardless of locality. Based on the sector-specific policy documents, national priorities focus especially toward food security, education, health, access to portable water, roads and infrastructure development, environment and natural resources management; human and institutional capacity development and, information and communication technology. All these support concrete and measurable improvements in the MDGs, especially the health MDGs. The health sector interventions, including the strategies for health MDGs are guided by the National Health Policy and the Health Sector Strategic Plan. These documents emphasize equity and health for all with high impact using the Primary Health Care approach.
Eritrea is located in the Horn of Africa region, where arid and semi-arid climatic conditions prevail. Therefore, the country is vulnerable to adverse effects of climate variability, recurring droughts and environmental degradation hampering agricultural development efforts.

Despite these challenges, Eritrea has made tremendous progress towards its own development goals and aspirations. The Government has endeavored to protect the most vulnerable segments of the population and to implement its long-term development policies. It maintains an extensive social safety net, investing in three priority areas: (i) food security and agricultural production, (ii) infrastructure development, and (iii) human resources development.

6.1. Background to the MDGs

All member states of the United Nations including Eritrea adopted the MDGs in 2000. Since then MDGs have become a global framework for development and are now broadly understood as a lynchpin to global security and an indicator of the international systems ability to set and follow-through on practical targets for global partnership.

Since the launching of the MDGs several enabling policies and programmes that facilitated integrated development plans and multisectoral programming have been initiated and implemented by the GoSE.

The significance of the MDGs lies in the linkages between them: they are a mutually reinforcing framework to improve overall human development. In the comprehensive nature of the MDGs is the recognition that development is an intersectoral and interdependent process. For example, improved nutrition affects school completion rates, and improved education contributes to better health. On the other hand, better health contributes to poverty reduction, and poverty reeducation contributes to employment and wealth creation.

Although this report focuses on the three health MDGs (4, 5, 6) which are directly related to the activities of the Ministry of Health, health is also an important contributor to the achievement of several other MDGs related to other sectors.

7. Status of Health Related Millennium Development Goals

The first MDG Report\(^5\) (2006) produced for Eritrea, among other things, assessed MDG4, 5, and 6 as on-track. This report focuses only on the health MDGs and explores enablers, innovations and challenges encountered along the way to success. It attempts to demonstrate what was done, how, and what lessons and challenges encountered along the way.

---

7.1. **Goal 4: Reduce Child Mortality**

Millennium Development Goal 4 (MDG 4) calls for reducing the under-five mortality rate by two-thirds between 1990 and 2015. The under-five mortality rate is a key indicator of child well-being, including health and nutrition status. It is also a key indicator of the coverage of child survival interventions and, more broadly, of social and economic development.

The global annual rate of reduction in child mortality steadily accelerated from 1.2 percent during the period 1990/1995 to 4.0 percent during the period 2005/2013 – more than threefold increment. Despite these gains, child survival remains an urgent concern. At a global level, progress has been insufficient.

In that context, Eritrea has witnessed an unprecedented reduction in infant mortality rates per 1,000 live births from 92 in 1990 to 58 in 2000, and to 37 in 2012 (WHO, 2014). During the same period, under-five mortality rate per 1,000 live births was reduced from 150 in 1990 to 89 in 2000, and to 50 in 2013 (figure 1) (UNICEF, 2014). MDG 4 calls for reducing under-five mortality by two-thirds between 1990 and 2015. The MDG-4 target for Eritrea for 2015 is 50. Hence Eritrea has achieved MDG-4 as of 2013.

**Figure 1:** Progress in Reducing Under-5 Mortality Rate by Year, 1990-2013

There are a number of strategies and lessons Eritrea has learned and applied over time to achieve this milestone. The GoSE recognizes the involvement of communities in rural areas as an effective and affordable way of preventing disease and promoting primary health care. Communities have been trained and awareness has been raised, resulting in improved health-seeking behaviors and in health services being brought closer to the community. For example, community involvement in successful immunization campaigns, which are entry points for maternal and child health interventions, has been critical in improving uptake of services and reducing dropout rates\(^6\). Other interventions include Community Integrated Management of Childhood

---

Illness and Community-Based Therapeutic Feeding, as well as the National Malaria Control Programme and the HIV and AIDS Programme.

Most studies and reports confirm this best practice in Eritrea. The GoSE puts much premium to the active involvement of the community in running their own affairs. Most developmental programmes at the Zoba level have direct inputs and control from the locality concerned. The governance structure itself emphasizes local empowerment through greater devolution to Zoba Administrations and communities that have increasing latitude in mapping out and implementing development programmes at the local level.

To achieve and sustain this progress, the Ministry of Health (MOH) adopted a holistic approach to improving child health that depends less on the use of sophisticated and expensive technologies than on the implementation of strategies that have proven effective worldwide. The Ministry’s overall policy with regard to child and adolescent health is that all Eritrean children have access to adequate health care at all levels.

Following independence in 1991, the Ministry of Health progressively introduced comprehensive packages of low-cost, high-impact interventions to improve child survival, including:

- Breastfeeding protection and promotion
- Complementary feeding
- Micronutrient supplements to combat iron and iodine deficiencies
- Vitamin A supplementation and supplementary and therapeutic feeding
- Immunization
- Insecticide-treated bed nets
- Prompt treatment for malaria
- Oral re-hydration therapy and zinc supplementation for diarrhea treatment
- Prevention and care of pediatric HIV/AIDS
- Antibiotic treatment for pneumonia, sepsis and dysentery
- Antenatal care and TT vaccination in pregnancy
- Safe delivery and emergency obstetric care
- Essential newborn care including postpartum visits
- Promotion of sanitation, hygiene and hand washing
- Building and use of maternity waiting homes

Scientific research and global child survival studies have shown that 63 per cent of child mortality could be avoided if such packages of proven preventive and curative interventions are fully implemented. Eritrea has made strides toward reducing child mortality through a mix of strategic interventions, including routine immunization and care through the formal health care system, community-based care (C-IMCI), and nationwide immunization and supplementation campaigns that reach over 95 percent of children.

---

7 Eritrea Second Cycle UPR Report p18.
As revealed in figures 2 and 3, coverage in immunization for the third dose of DPT (and since 1998 with the third dose of HePB) increased from 10 percent in 1991 to 98 percent in 2013.

**Figure 2: Immunization Coverage (DPT3), 1991-2013**

![Immunization Coverage (DPT3), 1991-2013](image)

Data Source: EPHS 2010 & MOH EPI survey

**Figure 3: Immunization Coverage with 3rd Dose of HepB Vaccines in Infants, 2011**

![Immunization Coverage with 3rd Dose of HepB Vaccines in Infants, 2011](image)

In addition to routine immunization, National Immunization Days (NIDs) were undertaken since 1996, with high coverage. As the result of the NIDs complemented with strong routine immunization program, Eritrea is ‘polio free country’ since 2008 and has maintained its polio free status, despite its proximity to countries where polio has not yet been contained.

Eritrea virtually eliminated maternal and neonatal tetanus since 2004 and was recognized as such by WHO in 2007. The successful outcome is the result of the incorporation of TT vaccine into routine and antenatal care, and an initiative providing tetanus inoculations to school age girls (Figure 4).
Twenty five countries, among them Eritrea, have eliminated MNT between 2000 & June 2012 (Figure 4).

**Figure4: Twenty Five Countries Eliminated MNT between 2000 & June 2012**

At the moment, measles no longer poses a threat to children in Eritrea. Virtually all children receive a dose at 9 months, and most receive a booster dose at 18 months through routine health care. Others are reached during Supplementary Immunization Activity (SIA).
Due to the above mentioned strengths in the immunization program, Eritrea was awarded by GAVI (Global Alliance for Vaccine Initiative) on October 17, 2009 in Hanoi, Vietnam for high and sustained immunization coverage.

7.2. **Goal 5: Improve Maternal Health**

MDG-5 aims to improve maternal health and has two targets; reduce maternal mortality by 2/3 between 1990 to 2015 (5a), and achieve universal access to reproductive health (5b) by 2015.

The maternal mortality ratio, which is defined as the ratio of the number of maternal deaths to the number of pregnancies, is an indicator of the risk of dying that a woman faces for each pregnancy she undergoes. Although conceptually the denominator should include all pregnancies, operationally, because of the difficulty of counting miscarriages and induced abortions, the denominator used instead is live births. The innovations such as the maternity waiting homes, contributed to the achievement of MDG-5.

As indicated in figure 6 below, the WHO Statistics Report 2014, reveals that the maternal mortality ratio for Eritrea declined from 1,700 per 100,000 live births in 1990 to 670 in 2000 and to 380 in 2013. Accordingly, the 2015 target for Eritrea is 425 per 100,000 live births. Thus Eritrea has already achieved the MDG-5, earlier than the due date of 2015 (see Figure 6).
Figure 6: Maternal Mortality Ratio (MDG-5)


Figure 7 indicates that the antenatal coverage for at least one visit during pregnancy increased from 19 percent in 1991 to 93 percent in 2013. Also as illustrated in figure 8, for the same period, delivery by skilled birth attendant increased from 6 percent in 1991 to 55 percent in 2013.

Figure 7: Antenatal Care Attendance, 1991 – 2013

Source: EPHS 2010, and LQAS Study (MOH (a), 2013
To improve coverage of post-natal care, the Ministry of Health undertakes a “6-6-6” program, meaning 6 hours, 6 days and 6 weeks postnatal visits. All mothers who deliver in a health facility get examined 6 hours after delivery, while still in the health facility. Those delivered at home and those who delivered in at health facilities are visited by a health worker in their homes six days after delivery. All of them are advised to come to a health facility six weeks after delivery. Accordingly, the mothers who get at least one postnatal care constitute 96% (MOH (a), 2013).

Access to emergency obstetric care services increased from 21 percent in 1995 to 88 percent in 2013 (increase of 319%). Additionally, one of the strategies that have contributed to the decline in the MMR in Eritrea is the use of Maternal Waiting Homes in nearby delivery facilities where pregnant mothers from remote areas receive services before their expected date of delivery.

### 7.3. Goal 6: Combat HIV/AIDS, Malaria and Other Diseases

Controlling the three diseases; HIV/AIDS, TB and malaria is crucial to achieving many of the MDGs, not just those pertaining to the three diseases. A successful fight against HIV/AIDS, TB and malaria will also have far-reaching impact on reducing poverty and child mortality and improving maternal health. Therefore more resources are still needed to sustain gains achieved and improve outcomes on these three diseases. MDG6 calls to halt and reverse the epidemics and halve the incidences for malaria, TB and HIV and AIDS and similarly for prevalence and mortality from the three. Eritrea has already achieved the targets.
7.3.1 Control of HIV and AIDS and current status

In Eritrea the prevention and control response to HIV and AIDS has focused on the following critical and required preventive and treatment approaches:

- Various behavior change communication activities (BCC) that address HIV/AIDS and STIs within the broad context of human sexuality and with special focus on high risk groups.
- Counseling and testing (C&T)
- Prevention of mother-to-child transmission (PMTCT)
- Provision of highly active antiretroviral therapy
- Treatment of opportunistic infections
- Support PLWHA with income-generating schemes
- Universal precautions and infection prevention
- Post exposure prophylaxis
- Support to orphans and vulnerable children
- Support female-headed households
- Fighting stigma and discrimination
- Multisectoral engagement and community participation
- Home-based care and spiritual support
- Male condom social marketing and free distribution of male and female condoms in the public sector.
- Early diagnosis and treatment of STI
- Safe blood transfusion and infection prevention

The 2010 EPHS estimated that the HIV prevalence for the general population in Eritrea is 0.93 percent. Women are more than two times as likely to be infected with HIV as men (1.13 percent and 0.5 percent, respectively). The female-to-male infection ratio of 2.26 is consistent with female-to-male ratio observed in other countries in sub Saharan Africa. Furthermore, data derived from VCT and PMTCT clients, and blood donors continually show a reduction in HIV as well as syphilis positivity rates.

As revealed in figure 9, HIV prevalence levels for both men and women rise with age, peaking among both women and men in their late 30s. The age patterns suggest that young women are particularly vulnerable to HIV infection compared with young men. Among women age 15-19, for example, 0.15 percent are HIV infected, compared with nil for men age 15-19 (Table 1). Urban residents have a substantially higher risk of HIV infection (1.44) than rural residents (0.5).

Table 1: HIV Prevalence by Age & Sex, EPHS 2010
<table>
<thead>
<tr>
<th>Age</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>0.15</td>
<td>0.00</td>
<td>0.09</td>
</tr>
<tr>
<td>20-24</td>
<td>0.23</td>
<td>0.00</td>
<td>0.16</td>
</tr>
<tr>
<td>25-29</td>
<td>1.49</td>
<td>0.26</td>
<td>1.21</td>
</tr>
<tr>
<td>30-34</td>
<td>1.72</td>
<td>0.82</td>
<td>1.5</td>
</tr>
<tr>
<td>35-39</td>
<td>2.89</td>
<td>1.61</td>
<td>2.55</td>
</tr>
<tr>
<td>40-44</td>
<td>1.32</td>
<td>1.52</td>
<td>1.38</td>
</tr>
<tr>
<td>45-49</td>
<td>0.91</td>
<td>0.89</td>
<td>0.9</td>
</tr>
<tr>
<td>Total</td>
<td>1.15</td>
<td>0.5</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Source: EPHS 2010

The World Health Statistics (WHO, 2014), indicates that the incidence of HIV AIDS in Eritrea has decreased from 45 per 100,000 population in 2001 to less than 8 in 2012. During the same period, the prevalence of HIV/AIDS decreased from 738 per 100,000 populations to 290.

International experience has shown that the prevalence of HIV among Antenatal Care (ANC) attendees closely reflects the HIV prevalence in the general adult population. As a result, the ANC HIV Sentinel Surveillance forms the basis for mapping and tracking the HIV epidemic worldwide.

Based on the Sentinel Sites Surveillance reports, Figure 9 reveals a steady decline in the prevalence of HIV infection among young pregnant women in the age group 15-24. Prevalence in this age group could be roughly considered as a proxy to incidence. This is one of the indications of deceasing incidence of HIV in Eritrea.

Source: ANC SS Survey, Eritrea

Figure 9: HIV Prevalence (%) trend, ANC SSS 2003-2011

Source: ANC SS Survey, Eritrea
With decreasing trends in the incidence and with the increased use of antiretroviral therapy, HIV related deaths have been decreasing and are expected to continue declining (Figure 10).

**Figure 10: HIV-Related Deaths by Year Today & Expected, 2001 – 2020**

Examination of data on trends in the annual number of AIDS cases and AIDS deaths, as well as trends in available data on HIV prevalence among pregnant women, blood donors, and VCT clients suggest stabilization and reversal of HIV infection in the general population. Knowledge about HIV/AIDS is maintained at a high level and condom distribution is increasing.

Current reports of the Ministry of Health show that close to 80% of the estimated HIV infected men, women and children who are eligible for antiretroviral treatment are receiving free treatment in well-established public hospitals and military medical units.

### 7.3.2 Malaria Control and Current Status

Malaria is endemic in Eritrea. The country faced serious malaria epidemics following an unusually heavy rainfall in 1998 and the El Nino of 1997.

Considering the health, social and economic importance of malaria as a public health problem, the MOH launched a Roll Back Malaria Strategy that took place in the city of Mendefera in July 1999. At that time, malaria ranked first as a cause of morbidity and mortality in the country. Since then, the Government launched implementation of its strategic plan with the objective of reducing malaria morbidity and mortality by 80 percent within five years. The MOH, in collaboration with other Government agencies, communities and other national and international partners worked intensively to
reduce the incidence and death due to malaria. The key strategies of the program included the following:

- Integrated vector control including environmental management, larveciding, indoor residual spray
- Bed net distribution and continuous follow-up for their use,
- Malaria case management - early diagnosis and prompt treatment,
- Community-based management of malaria by training community health agents
- Ensuring availability of drugs for treatment and laboratory supplies.
- Operational research including malaria surveys, drug sensitivity and drug resistance, entomological studies, etc.

The Malaria Program-Performance Review (2013) concluded that Eritrea is winning the war against malaria. The following are some of the evidences in support of this conclusion:

- Low malaria incidence of 4.78 per 1000 people at risk (ranging from 0.5 in Northern red Sea Zone to 12.6 in Gash Barka Zone) in 2012
- Ninety one percent reduction in malaria incidence from 53.5 cases/1000 population at risk in 1998 to 4.78 cases/1000 population in 2012,
- Ninety six percent reduction in malaria specific deaths from 0.198 deaths/1000 population in 1998 to 0.0076 deaths/1000 in 2012
- Low parasite prevalence nationwide; possible stratification of the country into two malaria-risk areas - low risk and moderate risk areas; and “break in malaria transmission” – a situation in which some parts of a sub-zone (district) are malaria-free while other parts have ongoing localized transmission at low or moderate levels.
- Northern Red Sea Zone reported 19,853 cases in 1998 but 228 cases in 2012, a 99% reduction in malaria burden; while Dahlak subzone reported 104 cases in 1998, it has not seen a single case of malaria since 2008.

The Malaria Program-Performance Review concluded that it is possible for Eritrea to move towards a malaria-free future due to the Eritrean spirit of resilience and commitment.

As revealed in figures 11 and 12, Eritrea achieved the objectives it set in 1999, by reducing malaria morbidity by more than 85 percent and mortality due to malaria by 90 percent in 2012. This translates to achievement of MDG-6 for malaria.

**Figure 11:** Annual Trend of Malaria Incidence per 1000 Population at Risk, 1998 – 2012
Figure 12: Annual Trend of Malaria Deaths per 1000 Population at Risk, 1998 - 2012
The World Health Statistics (WHO, 2014), indicates that the incidence of malaria in Eritrea was 1,282 per 100,000 population in 2012. As shown in Figure 13, two of Eritrea’s six regions (Gash Barka and Debub) are malaria-endemic with incidence of more than 5 and 15, respectively per 1,000, while two other regions (Southern and Northern Red Sea) have very low incidence-below 1. The remaining two Regions (Maekel and Anseba) have below 5 incidence rates. Consequently, the four Regions with low incidence are now moving from a malaria control mode to elimination of malaria.

**Figure 13: Eritrea Malaria Incidence Rate by Zoba in 2012**

Since inception in 1999, a total of 4,067 Community Health Agents (CHAs) have been trained; the CHAs are trained to focus on the following: diagnosis and appropriate treatment of fever cases within the community; coordination of environmental activities; and provision of health education on bed net use, environmental management, and early treatment to the community. In 1998, it was estimated that the CHAs treated 51.7% of all cases of malaria in Eritrea (See figure 14 for the annual trends). The 2012 MIS showed that 24.2% of respondents had seen/heard messages related to malaria from CHAs. The training and deployment of Community Health Agents has proven to be an innovative and effective strategy to control malaria both in the short and long term.

There is an ongoing retraining of CHAs on home management of malaria, environmental control, use of insecticide treated bed nets, and early healthcare seeking.
7.3.3 Tuberculosis Control and Status

With the emergence of HIV and resistance to anti-TB drugs, TB control has become more complicated. In 1994 WHO had recommended DOTS (Directly Observed Treatment Short-course) as a control of strategy which was expanded into Stop TB strategy in 2006.

Eritrea has demonstrated its commitment to the control of TB and has been implementing DOTS strategy since 1997 and Stop TB strategy since 2006 with 100% geographical coverage. The country’s 25 hospitals and 52 health centres have been appropriately equipped and their personnel trained to carry out the DOTS TB services. Additionally 184 health stations have been equipped and trained to identify suspected cases and refer sputum smear slides to microscopic centers. The program has made remarkable progress in improving case detection. The treatment success rate of new sputum positive TB cases has been maintained consistently at a high level of above 85% for several years. Furthermore, the program has adopted the 2006 STOP TB strategy and implemented with increasing intensity to address challenges of MDR-TB, improve TB/HIV collaboration, promote community participation, and engage all health care providers.

The key strategies that Eritrea implemented to control tuberculosis include:-
- Early case detection through use of smear microscopy and GeneXpert
- Focus on key affected populations including prisoners, miners, etc.
- Directly Observed Treatment which leads to high treatment success rate
- Contact tracing
- TB/HIV collaboration activities
- Programmatic management of drug-resistant TB
• Community involvement (community health promoters) for detection, case holding and awareness, etc.
• Advocacy, communication and social mobilization (ACSM)

As revealed in Table 2, the incidence of tuberculosis has decreased from 243 per 100,000 in 1990 to 93 in 2011, a 62 percent reduction. During the same period, prevalence of tuberculosis has decreased from 478 to 152 per 100,000, a 68 percent reduction. Mortality due to tuberculosis has decreased from 12 per 100,000 in 1990 to 4.7 in 2012, a 62 percent reduction (WHO, 2014).

**Table 2. Progress in Combating Tuberculosis, 1990 – 2012**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Estimates per 100,000 population</th>
<th>Percent reduction 1990-2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence</td>
<td>243 93</td>
<td>62</td>
</tr>
<tr>
<td>Prevalence</td>
<td>478 152</td>
<td>68</td>
</tr>
<tr>
<td>Mortality due to TB</td>
<td>12 4.6</td>
<td>62</td>
</tr>
</tbody>
</table>

**Incidence of TB is less than the global average of 125/100,000 population & Africa average of 243/100,000.**

*Source: Health Bulletin, MOH (b)*
*Global TB Report, WHO, 2014*

**8. Trends in Life Expectancy**

Life expectancy at birth reflects the overall mortality level of a population and summarizes the mortality pattern that prevails across all age groups – children and adolescents, adults and the elderly. Trends in life expectancy are usually taken as a summary indicator of many other health indicators.

As revealed in Table 3, life expectancy at birth increased significantly from 48 years in 1990 to 63 years in 2012. In 2012, life expectancy at birth was 61 years for men and 66 years for women. The main driver of this improvement in life expectancy at birth has been the rapid decrease in child mortality seen over the past two decades.

Since 1990, life expectancy at birth has increased by 15 years in Eritrea. At the global level both male and female life expectancies have increased by six years since 1990. Globally Eritrea is one of 24 countries that gained more than 10 years in life expectancy (both sexes combined) between 1990 and 2012 (WHO, 2014).
8. Strategies & Best Practices Driving Innovations in Eritrean Health MDGs

This report attempts to achieve two objectives. The first is to recognize that the Eritrean people have achieved MDG 4, 5, and 6. Secondly, it is to share experiences, lessons learnt and challenges encountered.

The core question is: what makes the Eritrean experience innovative, creative and unique to deliver health MDGs and achieve the health targets across the country?

8.1. Cross-Cutting Innovative Strategies Employed to Drive Health MDGs

The GoSE accords health a prominent place in its priorities and it is committed to achieving and sustaining the gains of health goals. In particular, the Government continuously emphasizes participation and involvement of all Eritreans in development programmes. The Government is, therefore, determined to create the requisite social, economic and political environment conducive to the realization of the goals.

Good health is essential to human welfare and to sustained development. Health programs being advanced by the GoSE include a mix of health promotion, prevention, treatment, and rehabilitation services. However, it is evident that some responsibilities of promoting and sustaining health targets lie outside the confines of the health sector. Education, housing, food and employment are among those factors that impact health. Accordingly, success or failure in achieving the other MDGs impact health MDGs.

The innovative best practices used to achieve health MDGs for all Eritreans, started with the Eritrean People’s Liberation Front (EPLF) prior to independence. These were consolidated by the Government after independence. Chief among them was the adoption of the Primary Health Care (PHC) approach as the principal strategy towards the attainment of the health MDGs.

An early innovation which became internalized in the Eritrean development process has been intersectoral collaboration and close coordination between sectors. This

---

**Table 3: Eritrea, Life Expectancy**

<table>
<thead>
<tr>
<th>Life expectancy (years)</th>
<th>Both sexes</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life expectancy at birth</td>
<td>48</td>
<td>63</td>
<td>46</td>
</tr>
<tr>
<td>Life expectancy at age 60</td>
<td>12</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

*Source: World Health Statistics Report, 2014*
approach has proved very effective in all development programming is a guiding principle in Eritrea.

8.2. Efforts Towards Universal Health Coverage

In the Eritrean health care planning and delivery process, equity is the call for universal coverage of the population, with care provided according to need. In principle no one should be left out, no matter how poor or how remote. If all cannot be served, those most in need should have priority. Here lies the “all” in the health for all mantra. Here also is the basis for planning services for defined populations, and for determining differential needs in all administrative areas of the country.

8.3. Integrated Health Services Provision in Eritrea

The Overseas Development Institute study (2010) of Eritrea's health MDGs concluded that the success of the Eritrean experience was especially based in the cost-effective inter-sectoral interventions and a long-term perspective the government has adopted to tackle health issues in the country. The report cites three key lessons from the Eritrean experience which are noteworthy:

(i) Despite limitation of resources, Eritrea is expected to achieve the Millennium Development Goals (MDGs) in health.

(ii) Eritrea’s commitment to the development of health and education is led by the government, which retains control and monitoring of policies and programmes.

(iii) Eritrea’s experience in adapting to adverse circumstances has given the population the capacity to develop innovative approaches to health.

At liberation in 1991, the health status of the Eritrean people was very poor. This was reflected in the findings of the Eritrean Demographic and Health Survey (EDHS) undertaken in 1995. At that time, Eritrea was characterized with low life expectancy, high maternal mortality ratio, and high under-five mortality rate (NSO, 1996). To address the challenges of poor health status among the population, the GoSE initiated the process of building a national healthcare system by adopting a policy based on the principles of primary health care, self-reliance, multisectoral collaboration and planning. Furthermore, it quickly developed appropriate strategies of which rehabilitation of the devastated health infrastructure, and human resources development were prominent. The effort has been successful in building a National Health Service System with fairly equitable access. This effort to rehabilitate the National Health Service System is far from over and should be supported by substantial technical and financial resources from development partners as articulated in the current SPSF.

---

8Progress in health in Eritrea: Cost-effective intersectoral interventions and a long-term perspective, p6.
Eritrea’s march toward promoting accessible, equitable and affordable health services to all of its citizens has been remarkable. The major interventions have been the provision of integrated health-facility delivery services, immunization, family planning, nutrition interventions, control of communicable diseases including HIV and AIDS, tuberculosis (TB), malaria, and expansion of community based interventions. To further improve maternal health, a Roadmap for Maternal and New-born Health is in place, supported by the Campaign on Accelerated Reduction of Maternal Mortality in Eritrea (CARMME). The triple threat of HIV, TB and malaria is being tackled through a partnership involving the GoSE; Global Fund on AIDS, TB and Malaria and the UN system.

The GoSE runs a coordinated and stratified three tier health care delivery system which has also proved to be formidable in meeting the felt needs of communities at all levels. It is a system that takes care of the population from the very local levels to national levels. Understanding how the health delivery system works across the country improves appreciation of how Eritrea achieved health MDGs.

**Figure 14 Eritrea Three Tier Healthcare Delivery Structure**

---

9 The five major vaccine preventable diseases (poliomyelitis, measles, Diphtheria, Tetanus and Whooping Cough) no longer pose major public health problem in Eritrea. The country has eliminated maternal and neonatal tetanus and reduced to less than 90% of the 1991 levels the menace of measles. The country has been certified as “Dracunculiasis free” (Guinea worm) and is heading towards achieving polio-free status.
Primary level of service consists of community-based health services with coverage of an estimated 2,000 to 3,000 people. This level provides basic health care package (BHCP) services by empowering communities, and mobilizing and maximizing resources. The key delivery agent is the community health worker under the leadership of the Village Health Committee;

(ii) Health Stations offer facility-based primary health care services to a catchment population of approximately 5,000-10,000;

(iii) Community Hospital is the referral facility for the primary health care level of service delivery serving a community of approximately 50,000-100,000 people. Community hospitals provide all services available at lower level facilities, and additionally deliver obstetric and general surgical services with the aim of providing vital lifesaving surgical, medical and other interventions closest to the people.

Based on the Health Sector Strategic Development Plan (2012-2016), secondary level services are to be provided by the regional (zonal) referral hospitals and 2nd contact hospitals. Secondary level health facilities serve as referral centers for the lower level facilities and as teaching/training institutions for middle and operational level professionals. They also facilitate limited operational/applied research at their level (MOH, 2012).

Tertiary level of service is provided by the national referral hospitals that are situated in the capital city- Asmara. Tertiary level health facilities not only serve as national referral facilities but also as centers of excellence for specialized training/education, research and continuing education.

As illustrated in figure 15, since 1991, the number of hospitals increased from 16 to 28, health centers increased from 5 to 56 and health stations (including clinics and MCH facilities) from 72 to 256. However, as shown in figures 16 and 17, this quantitative increment, significant as it is, does not fully reflect the qualitative improvements that resulted from the replacement of old and run-down facilities by the construction of new and improved facilities.
Figure 15: Increment in number of health facilities, 1991 to 2013

![Graph showing increment in number of health facilities from 1991 to 2013.]

Source: Health Bulletin (MOH (b), 2013)

Figure 16: Some of the Hospitals Constructed after Independence

Some of the Hospitals Constructed after Liberation

---

10Some of the Hospitals Constructed after Liberation include:

---

10Major Hospitals constructed after independence include:
As the result of the concerted efforts made to expand health services by building health facilities and equipping them with the necessary equipment and skilled health personnel, access to health care within 10 Km radius, increased from 46 percent at the time of liberation to 78 percent at the present moment. Currently, over 60 percent of the population lives within 5 kms from a health facility (figure 18).

Whereas 5 kms seems close there are still other layers of complexity to be resolved in facilitating effective health services delivery mechanisms in Eritrea. 5kms can still be prohibitive. Some populations are mobile. Others live in very prohibitive mountainous terrain to navigate 5kms to the nearest health facility. Yet others experience other socially constructed prohibitions in health seeking behaviors. One very innovative best practice the GoSE has perfected is the development and continuous improvement of the mobile health care services especially to such hard-to-reach communities. These are strategies where health care services “come” to the populations rather than vice versa. Allied to that some health workers work and live with these communities.

Figure 18: Distribution of health facilities in Eritrea, 2014
8.4. Strategy of Comprehensive Services Delivery

Comprehensiveness of services means services should be promotive, preventive, curative and rehabilitative, i.e. services should not only be curative, but also should promote the population’s understanding of health and healthy styles of life, and reach towards the root causes of disease with preventive emphasis. Treatment of illness and rehabilitation are as important as well.

The MOH is increasingly emphasizing promotive and preventive services besides the curative services. The improvement of percentage of immunized children from about 10 percent in 1991, to more than 95 percent at the moment; the reversal and stabilization of HIV infection in the general population at a low level below one percent; the elimination of polio and neonatal tetanus; the control of measles and malaria, are concrete examples of the emphasis made on promotive and preventive services in the health care sector in Eritrea.

Improvements in clinical services with improving quality and standards of curative and pharmaceutical services and ensuring availability, affordability and quality of essential and other medicines for both preventive and curative services are other examples of efforts in promoting comprehensive services. This strategy still needs to be studied for to evaluate the quantitative, qualitative and beneficial outcomes of this approach.

Source: Health Bulletin (MOH (b), 2013)
8.5 Community Involvement

Eritrean communities have a long-standing culture of being actively involved in all issues; political, social and economic matters that concern them. One of the unique features of the struggle for the liberation of Eritrea has been self-reliance, and the remarkable degree of community involvement at every stage of the struggle. After independence the Government has been building further on the successes of the struggle. It has also been asserted through various studies on Eritrea that one of the key success stories of Eritrea’s development process is its ability to mobilize and motivate communities to be involved in the design, development and utilization of development programmes.

8.6. Intersectorial Approaches

Approaches to health should relate to other sectors of development. The cause of ill health is not limited to factors that relate directly to health, and the paths to be taken to deal with ill health must not be solely health interventions. The Eritrean intersectoral collaboration was bolstered by initiatives such as education for literacy, income supplementation, clean water and sanitation, improved housing, ecological sustainability, more effective marketing of products, building of roads or waterways, enhanced roles for women as part of the development agenda across sectors. All these approaches have had a positive and substantial impact on the health MDGs. Experience shows that communities often respond more readily to broader and participatory approaches to development as opposed to fragmented sector by sector approaches.

The concept we have known as “health in all polices”, is based on recognition that population health can be improved through polices that are mainly controlled by sectors other than health. The health content of school curricula, industry’s policy towards employees’ safety, or the safety of food and consumer goods are all issues that can profoundly influence or even determine the health of entire communities, and that can cut across national administrative boundaries. It is not possible to address such issues without intensive intersectoral collaboration that gives due weight to health in all polices.

8.7 Political Commitment and Leadership

The political commitment of the GoSE to the health of the population is formidable. This is realized by ensuring the availability of clear policies, sustaining financial support, institutional development, creation of an enabling environment and human resources development. This political commitment is the basis in the development of National Health Policy and Health Sector Strategic Development Plan.
9. Summary of Success Factors for Health MDGs
The positive achievements in maternal and child health, including HIV, Malaria and other diseases are not being realized in isolation. They are getting a boost from other activities, which can be described as ‘collateral gain’ and “incremental cultural knowledge”. These can be summarized as follows:

a) Selfless Government committed to national development
b) Dedicated service providers and community participation/ ownership
c) Collateral gains and incremental cultural knowledge base with improved road network; access to potable water; reliable power supply; and infrastructure for health.
d) Effective local and international partnerships
e) Equitable distribution of health services
f) Complementarity with other related programs, such as Malaria, HIV/ AIDS,
g) Human Resources Development
h) Encouragement of research and innovation

10. Overall Challenges to Sustain and Improve Health MDGs in Eritrea
As indicated under various sections above, the success so far of Eritrean Health MDGs faces challenges including: sustaining the gains already achieved beyond 2015, attracting partnerships (with sufficient technical, research, and financial resources and goodwill) to support the GoSE in its development journey.

The identified challenges include:

**Maternal and Child Health:** Although more than 90% of pregnant women attend antenatal care (ANC), only about half are delivered by skilled professional attendants. In spite of the drastic reduction (77%) in Maternal Mortality Ratio (MMR) since 1990, it is still too high at 380 per 100,000 live births. There also remains the greater need to reduce neonatal mortality which currently accounts for close to half of infant mortality.

**Communicable Diseases:** Despite the notable achievement in the control and prevention of communicable diseases (HIV and AIDS, Malaria and Tuberculosis) there remains a great deal of challenges to overcome. The threat of resurgence of these diseases requires evidence-based strategies, vigilance and non-complacency.

Furthermore, although there has been good progress in the reduction of the incidence, prevalence and case fatality rate of acute respiratory tract infections, diarrhoeal diseases and NTDs, they remain to be diseases of public health concern.

**Non-communicable Diseases (NCDs):** Although non-communicable diseases were historically viewed as a burden of industrialized nations, evidence shows that this situation is expected to dramatically change globally over the next decade. Epidemiologists estimate that by the year 2020, chronic diseases will account for “seven out of ten deaths in low-income regions of the world compared with less than half today”. This trend is already
evident in Eritrea as the prevalence of non-communicable diseases and injuries is increasing. The increasing trend of non-communicable diseases added to the prevailing disease burden of communicable diseases, poses a double disease burden challenge.

The efforts made in the control of communicable diseases and the changes in the living standards and lifestyles of Eritrean people as well as environmental factors are leading to an epidemiologic shift from communicable to non-communicable diseases.\textsuperscript{11} There is growing frequency of non-communicable diseases such as hypertension, diabetes, cancers, chronic lung diseases (asthma) and mental health problems.

\textit{Human Resources for Health}: The rapid expansion of health infrastructure since independence to cater for national health needs led to a high demand for health personnel. Additionally, with the increase of non-communicable diseases together with the burden of communicable diseases, the sector is faced with a challenge of providing specialized services that require a higher and different skilled staff. In essence, the current issue is not only numbers but also competency and the right mix of the health professionals that are able to respond to current, emerging or re-emerging health conditions in Eritrea.

\textit{Health Care Financing}: Considering the desire to improve the quality of care in health facilities for a growing population with an increasing burden of non-communicable diseases, there is need to transform the financing framework that has been in existence since independence, with the aim of reducing the economic risks borne by individuals and households and concurrently generating other resources for the attainment of the sectors’ strategic objectives.

\textbf{11. Summary of Lessons Learnt}

As mentioned in several sections of this report there are innovations, best practices and lessons that have been accumulated and used in the Eritrean experience in implementing the health MDGs. Below is the consolidated list.

1) A strong government, with the ability to motivate and mobilize people behind a clear goal, emerges as key to progress in Eritrea. The Government has managed to generate a unique sense of community among a diverse group of ethnicities and religions. Involvement of the diaspora in the socio-economic development of the country is closely linked with the idea of unity for the greater good.

2) Community participation and involvement in health service delivery, besides helping alleviate shortages of skilled staff, has brought services closer to the community. This has an important impact on awareness at community level.

\textsuperscript{11} Prevalence of Non-Communicable Disease Risk Factors in Eritrea study (2006) by Abdulmumini Usman et al.
and, as such, has removed barriers to the dissemination of health information. Additionally, it has reinforced a sense of belonging and of contributing towards the common good.

3) Investment in human capital as a key driver of development has been of vital importance. The Government foresaw future needs and made long-term investments in health and education.

4) Government leadership in development projects and programmes is important to ensure sustainability and commitment to goals, as well as to avoid unpredictable shifts in donor priorities and/or financial commitments.

5) Effective coordination among sectors avoids duplication of efforts and allows for cost-effective projects. In the Eritrean health sector, what might have constituted rivalry between ministries has been transformed into opportunities to scale up services more efficiently.

6) A strong understanding and down-to-earth assessment of the resources available to foster development encourages both realistic actions and common-sense policies.

12. Conclusion

With less than 500 days to the end of the Millennium Development Goals adopted in 2000, many countries have started to draw lessons on how the experience from the implementation of the MDGs could assist in the formulation and management of its successor. Accordingly, the lessons drawn from the above indicated interventions and successes should help Eritrea itself in the articulation and operationalization of further health goals in the post 2015 development agenda.

The political commitment of the State of Eritrea to the betterment of health of the population is one of the biggest opportunities that make the policy environment favorable for progress in health. There are also many other opportunities that are unique to Eritrea, including its history of long struggle for independence and social cohesion. One of the most important contributors to the success in health in Eritrea is its highly responsive population.

13. The Post-2015 Global Development Agenda

The Millennium Development Goals, adopted in 2000, set out a shared global framework of development priorities for the next 15 years. At that time, they were unique amongst other development commitments, in that they had a unanimous global adoption and an integrated, ambitious, time-bound and quantifiable nature. Although the MDGs will expire on 31 December 2015, even with the majority of global
targets unmet, there is global consensus that substantial progress has been made in many areas. Thus, there is global understanding that the momentum towards sustainable development created by the MDGs needs to be preserved.

The establishment of a post-2015 development agenda will need to capitalise on the strengths of the MDGs, while at the same time ensuring that the gaps are addressed and that the new development context is considered. The world has changed considerably since the year 2000, as have individual countries and populations. The twelve years since the start of the millennium have seen new crises affecting development, such as the global financial and economic crisis and an acute food crisis, especially in Sub Sahara Africa. The impact of climate change is also affecting our planet to a much higher degree.

Current global development planning has also reached consensus that a new set of goals or development framework will need to reflect these realities. The Rio+ outcome document, *The future we want* gave the mandate that the Sustainable Development Goals (SDGs) should be coherent with and integrated into the UN development agenda beyond 2015\(^\text{12}\). Sustainable Development Goals are accompanied by targets and will be further elaborated through indicators focused on measurable outcomes. They are action oriented, global in nature and universally applicable. They take into account different national realities, capacities and levels of development and respect national policies and priorities. They build on the foundation laid by the MDGs, seek to complete the unfinished business of the MDGs, and respond to new challenges. These goals constitute an integrated, indivisible set of global priorities for sustainable development. Targets are defined as aspirational global targets, with each government setting its own national targets guided by the global level of ambition but taking into account national circumstances. The goals and targets integrate economic, social and environmental aspects and recognize their inter-linkages in achieving sustainable development in all its dimensions.

The global discussion on these issues has already begun and Eritrea should not miss out on the opportunity to contribute to that global discussion and help to shape the post-2015 development agenda. That way Eritrea can also be able to carry over the unfinished agenda from the five unmet MDGs.

### 13.1. What the MDGs Have Achieved

Despite some shortcomings, the MDGs are generally considered a success. The eight goals have focused attention on the poor and have made significant contributions to the socio-economic development of countries across the globe. Their framework has also helped to raise global consciousness about the multiple dimensions of poverty.

\(^{12}\) Introduction to the Proposal of The Open Working Group for Sustainable Development Goals, July 17, 2014, p2
As a result, developing countries, including Eritrea, have given priority to poverty reduction and streamlined the MDGs within their development plans.

The MDGs have had unprecedented success in galvanising international support from governments and international bodies, as well as from civil society, the private sector, charity foundations, the media and academia, on the need to focus on a common set of goals that seek to enhance human capabilities. The MDGs have also created a greater focus on results. With specified targets, they allow countries to track and report on specific indicators, emphasizing the importance of data collection and analysis to cater for evidence-based reporting and planning. This has not only encouraged countries to improve on data monitoring, evaluation and reporting systems, but has also allowed governments to create social and economic development policies that better reflect the realities of their countries.

13.2 The Challenges and Lessons Learnt from MDGs

The MDGs have been criticised for being too general and sometimes viewed as a global, one-size-fits-all development framework, overlooking differences in the context and capacities of different countries. It has also been argued that the goals lack clear ownership at national and international levels. This is because they were conceived as a top-down approach and the involvement of developing countries in the initial framework was minimal, leading to weak national ownership. Furthermore, the goals were also not aligned with existing continental programmes.

The MDGs have also been criticised for being disproportionately focused on social indicators, at the expense of employment creation and the productive sectors, thereby creating a tension between desired outcomes and sustainable economic development.
References

Primary Bibliography
1. MOH(a), Communicable Diseases Control Division, Lot Quality Assurance Sampling Survey Report for HIV/AIDS, STI, TB. 2013, Asmara Eritrea
2. MOH(b), Health Bulletin (Tigrigna). 2013, Asmara Eritrea
4. MOH, Health Bulletin. 2011, Asmara Eritrea
5. MOH, National Health Policy. 2010, Asmara Eritrea.
7. MOH, Progress in Health Millennium Development Goals, 2013 Asmara Eritrea
10. Report of an external review of the National Tuberculosis Control Programme 2012, Department of Health Services National HIV/AIDS & Tuberculosis Control Division (NATCoD, Asmara Eritrea)
12. MND, Millennium Development Goals Report, 2006, Asmara Eritrea
18. African Economic Outlook, Eritrea 2014

Secondary Bibliography
19. MOH: National health Policy; March 2010
20. MOH: Health Sector Strategic Development Plan 2010-2014
21. MOH: Summary of Health Sector Development Plan; 2012 -2016
22. MOH: Sexual and Reproductive Health Strategic Plan 2011- 2015
23. MOH: Road Map for maternal and Newborn Health 2012 -2016
26. MOH: PMTCT Implementation guidelines (Jan 2012)
28. MOH: Post Exposure Prophylaxis Guideline
29. MOH: national Health Information Systems Policy and Policy Guidelines, June 2011
MOH: Training Package for STI and Syndromic Approach to Managing STI Cases